

National Climatic Data Center

DATA DOCUMENTATION

FOR

DATASET 9723 (DSI-9723)

HOURLY SYI & DIRECT SOLAR DATA

January 20, 2004

National Climatic Data Center
151 Patton Ave.
Asheville, NC 28801-5001 USA

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1. **Abstract:** NCDC (National Climatic Data Center) has in its possession the historical dataset TD-9723 (Direct Radiation and Standard Year Radiation (SYI) taken from SOLMET. SOLMET refers to the combination of solar radiation and meteorological data. This term is also used to identify the 26 stations that collected global horizontal data from 1951 through 1975. The SOLMET stations, included instruments that measure the global horizontal solar radiation and researchers modeled the direct beam solar radiation data. Each of the stations measured global horizontal solar radiation. Some of these stations made continuous recordings on strip charts; other stations only recorded the daily total energy (insolation) received. Much of these data were digitized at the station, using instructions that changed over the years, and were forwarded to regional centers (later centralized at the NCDC. There they were subjected to varying degrees of quality control. These historical solar radiation data contain errors resulting from a host of calibration and instrument problems. During 1976, the network was essentially shut down while new equipment was purchased and installed. When these data were evaluated, only 26 stations were deemed suitable for inclusion in a national data base.

2. **Element Names and Definitions:**

Tape Format

Position	Element
1	Code where: 1 Identifies data as being SYI radiation 2 Identifies data as being Direct radiation
2-6	WBAN Station Number
7-8	Year
9-10	Month
11-12	Day
13	Data Code Indicator for Hour 01
14-17	Radiation Value for Hour 01
18	Data Code Indicator for Hour 02
19-22	Radiation Value for Hour 02
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128	Data Code Indicator for Hour 24
129-132	Radiation Value for Hour 24

3. **Start Date:** 19511201

4. **Stop Date:** 19761231

5. **Coverage:**

- a. Southernmost Latitude: 15.0S
- b. Northernmost Latitude: 72.0N
- c. Westernmost Longitude: -165.0W
- d. Easternmost Longitude: -60.0E

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6. **How to Order Data:**

Ask NCDC's Climate Services about the cost of obtaining this data set.

Phone: 828-271-4800

FAX: 828-271-4876

E-mail: NCDC.Orders@noaa.gov

7. **Archiving Data Center:**

Archive Branch
National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

8. **Technical Contact:**

National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

9. **Known Uncorrected Problems:** None.

10. **Quality Statement:**

11. **Essential Companion Datasets:**

12. **References:**